

Remarks/Arguments:

Reconsideration of the application is requested.

Claims 1 and 3-5 remain in the application.

In item 8 on page 3 of the above-identified Office action, claims 1 and 5 have been rejected as being unpatentable over Krebs Fig. 4 in view of Garabedian (US 4,986,956) further in view of any of Nissel (DE 26 18 108), Itoya et al. (JP 0000550319 AA) (hereinafter "Itoya"), Stiefel (U.S. Patent No. 4,304,198), Schweiger (U.S. Patent No. 4,801,424) or Larsen et al. (U.S. Patent No. 5,122,333) (hereinafter "Larsen") under 35 U.S.C. § 103(a).

As will be explained below, it is believed that the claims were patentable over the cited art in their original form and the claims have, therefore, not been amended to overcome the references.

Before discussing the prior art in detail, it is believed that a brief review of the invention as claimed, would be helpful.

Claim 1 calls for, *inter alia*:

the outlet nozzle of the condensation tube being formed by a tube section having a beveled end defining an outlet opening directed towards the surface defining the horizontal.

The Examiner correctly stated on page 2 of the Office action that combination of Krebs and Garabedian does not disclose directing the outlet opening of the condensation tube towards the surface of the water within the suppression pool.

The outlet geometry as recited in the claims of the instant application, wherein the side of the outlet nozzle facing the base of the surrounding condensation chamber is longer than the side facing away from the base (so that the outlet opening is oriented towards the liquid level that lies above) cannot be derived without hindsight consideration, even when considering the newly cited references.

The following arguments are provided for each of the alternative references cited by the Examiner.

The Nissel reference discloses the avoidance of undesired pressure amplitudes when letting condensable gas or steam into a condensation tube filled with liquid. However, the solution

provided in Nissel is only compatible in a sensible manner with Krebs, but not all with Garabedian. Nissel discloses a trumpet- or cone shaped steering body that is substantially radially symmetric (Fig. 2) that is inserted, with its narrow end, into the outlet region of the condensation pipe. The steering body is curved outside of the pipe and guides the medium after the medium has exited the outlet of the condensation pipe. This creates the desired flow by deflection. On account of the symmetric construction of the steering body and the mode of operation thereof the steering body would only be considered with an outlet opening that is not beveled. A person of ordinary skill in the art is not provided with any motivation to combine Nissel with a reference having condensation pipe with a beveled outlet end, such as disclosed by Garabedian. Besides that, no such steering body is provided in accordance with the invention, which would inappropriately narrow the outlet diameter of the condensation pipe. Furthermore, Nissel makes provision for the flow medium to flow out of the outlet opening of the condensation pipe in a substantially downward direction with subsequent rerouting into an approximately horizontal direction. However, Nissel does not disclose directing the outlet opening itself in an upward direction. Therefore,

Nissel does not make of for the deficiencies of Krebs and Garabedian.

It is a requirement for a *prima facie* case of obviousness, that the prior art references must teach or suggest all the claim limitations.

As seen from the above remarks, the references do not show or suggest the outlet nozzle of the condensation tube being formed by a tube section having a beveled end defining an outlet opening directed towards the surface defining the horizontal, as recited in claim 1 of the instant application.

The Examiner correctly stated that combination of Krebs and Garabedian does not disclose directing the outlet opening of the condensation tube towards the surface of the water within the suppression pool.

As seen from the above-given remarks, Nissel does not make up for the deficiencies of Krebs and Garabedian.

The references applied by the Examiner do not teach or suggest all the claim limitations. Therefore, it is believed that the Examiner has not produced a *prima facie* case of obviousness.

The following remarks pertain to the Schweiger reference.

Schweiger discloses that the medium guided through the condensation pipe exits via a plurality of exit nozzles arranged on a rotatable nozzle ring, respectively aligned upward in a slanted manner and tangentially to the circumference of the nozzle ring. This causes the nozzle ring to rotate, when flowing through, due to repulsion effects, which in turn generates a cyclone flow in the surrounding liquid tank. Schweiger discloses that the originally horizontal liquid surface changes into a more or less funnel shaped or parabolic surface due to the centrifugal force accompanying the cyclone action (column 3, paragraph 2) of the rotating ring. Therefore, when Schweiger is in use, there is not horizontal surface. Moreover, a complex system as disclosed by Schweiger has nothing in common with regard to the essential structural components or the mode of operation with the construction of a simple pipe disclosed, for example, in Krebs and provided with a bend section (section of curvature). Because the device pipe disclosed in Krebs does not include a rotation to create a cyclone effect and the sole reason for the orientation of the nozzle in Schweiger is to generate the cyclone effect, there is no motivation for a

person of ordinary skill in the art to consider the Schweiger reference to modify a pipe outlet as disclosed by Krebs and or Garabedian.

The following remarks pertain to the Stiefel reference.

Similar to Krebs, Stiefel discloses a blowout pipe immersing into a liquid which has a section of curvature near the outlet side. Instead of a single nozzle, the outlet region (disposed along the side of the pipe) shows a type of grid so that a plurality of miniature nozzles (approximately 15,000) (column 3, lines 56-65) is realized. This provides a flow dynamic in the outlet region, which is completely different from Krebs. Stiefel does not provide any motivation for a person of ordinary skill in the art to modify Krebs and Garabedian, as defined in the instant application, while at the same time deviating from Stiefel and in doing so eliminating the nozzle grid.

The following remarks pertain to the Larsen reference.

Similar facts apply to Larsen, wherein relatively complex outlet geometries are realized as nozzle grids. The fact alone that, in this case, flow components directed upward

occur in the respective outlet region is motivation for a person of ordinary skill in the art to combine Krebs with Garabedian in the manner as now provided in accordance with the invention. This is rather a case of hindsight reconstruction in view of the present invention, particularly, the required components are pieced together from a number of publications like a mosaic without a motivation for the combination.

The following remarks pertain to the Itoya reference.

Itoya discloses that the outlet nozzles are directed in a substantially horizontal direction and not upward toward a surface defining a horizontal. It appears that on page 5 of the Office action, the Examiner has modified a figure of Itoya to include arrows directed to the horizontal, however, there is no basis for the added arrows as the outlet opening are explicitly shown to be directed in a substantially horizontal directions.

It is a requirement for a *prima facie* case of obviousness, that the prior art references must teach or suggest all the claim limitations.

As seen from the above remarks, the references do not show or suggest the outlet nozzle of the condensation tube being formed by a tube section having a beveled end defining an outlet opening directed towards the surface defining the horizontal, as recited in claim 1 of the instant application.

The Examiner correctly stated that combination of Krebs and Garabedian does not disclose directing the outlet opening of the condensation tube towards the surface of the water within the suppression pool.

As seen from the above-given remarks, Itoya does not make up for the deficiencies of Krebs and Garabedian.

The references applied by the Examiner **do not** teach or suggest all the claim limitations. Therefore, it is believed that the Examiner has not produced a *prima facie* case of obviousness.

The following further remarks pertain all of the references the Examiner attempts to use in the rejection.

Despite the fact that individual structural features of the subject matter of the application (as the Examiner himself

emphasizes several times) have been known for quite some time, no reference could be found that shows all features.

On page 7 of the Office action the Examiner alleges that "...as well as the teachings of ANY of the other references above would indeed lead one to find that directing the opening towards the surface defining the horizontal would be an obvious arrangement of said opening for the obvious benefits thereof, i.e. directing the flow of effluent in a desired direction while minimizing chugging effects."

It is respectfully noted that the Examiner appears to have taken the result of "minimizing chugging effects" directly from the specification of the instant application.

Particularly, none of the references which the Examiner relies on for showing openings directed in an upward direction, disclose having any effect on chugging. It is only from page 14 of the specification of the instant application that there is any disclosure of an outlet nozzle directed toward the horizontal surface having an effect on chugging. Therefore, the Examiner's reason for combining the reference is based on the specification of the instant application. However, it is impermissible, to use the disclosure of the instant

application for supplying the motivation to combine references.

Therefore, applicants respectfully believe that any teaching, suggestion, or incentive possibly derived from the prior art is only present with hindsight judgment in view of the instant application. "It is impermissible, however, simply to engage in a hindsight reconstruction of the claimed invention, using the applicant's structure as a template and selecting elements from references to fill the gaps. . . . The references **themselves** must provide some teaching whereby the applicant's combination would have been obvious." In re Gorman, 18 USPQ2d 1885, 1888 (Fed. Cir. 1991) (emphasis added). Here, no such teaching is present in the cited references.

In item 9 on page 7 of the Office action, claims 3 and 4 have been rejected as being unpatentable over Krebs Fig. 4 in view of Garabedian and further in view of either John et al.

("Introduction to Fluid Mechanics," Second Edition)

(hereinafter "John") or Nayyer ("Piping Handbook," Seventh Edition) under 35 U.S.C. § 103(a). The Examiner has not changed this rejection to reflect changes in the rejection to claim 1. Therefore, it appears that claims 3 and 4 contain allowable subject matter. Even though it appears that claims

3 and 4 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The claims have not been amended as indicated by the Examiner, as the claims are believed to be patentable in their existing form.

It is accordingly believed to be clear that none of the references, whether taken alone or in any combination, either show or suggest the features of claim 1. Claim 1 is, therefore, believed to be patentable over the art and since all of the dependent claims are ultimately dependent on claim 1, they are believed to be patentable as well.

In view of the foregoing, reconsideration and allowance of claims 1 and 3-5 are solicited.

In the event the Examiner should still find any of the claims to be unpatentable, counsel respectfully requests a telephone call so that, if possible, patentable language can be worked out.

If an extension of time for this paper is required, petition for extension is herewith made.

TER-02P0020 - Application No. 10/727,753
Response to Office action April 4, 2008
Response submitted July 7, 2008

Please charge any other fees which might be due with respect
to Sections 1.16 and 1.17 to the Deposit Account of Lerner
Greenberg Stemer LLP, No. 12-1099.

Respectfully submitted,

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July 7, 2008

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